

## REMARKS

Claims 1-14 are pending in the application. It is gratefully acknowledged that Claim 4 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The Examiner objected to the drawings under M.P.E.P §608.02(g) as not being labeled "Prior Art". The Examiner objected to Claims 3, 6, 8 and 10 because of informalities. The Examiner rejected Claims 11 and 12 under 35 U.S.C. §112, first paragraph as containing subject matter which was not described in the specification. The Examiner has rejected Claims 1-3, 5, 6, 8 and 9 under 35 U.S.C. §102(b) as being anticipated by Applicant's Admitted Prior Art. The Examiner has rejected Claims 7, 10, 13 and 14 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art in view of van Driest (U.S. Patent 6,314,145).

Regarding the objection to the drawings, Figs. 1, 2 and 3 have been labeled "Prior Art" and are attached hereto. Withdrawal of the objections to the drawings is respectfully requested.

Regarding the objections of Claims 3, 6, 8 and 10, the claims have been amended. Withdrawal of the objections to Claims 3, 6, 8 and 10 is respectfully requested.

Regarding the rejection of Claims 11 and 12 under §112, first paragraph, the Examiner states that the specification does not disclose how the count value is converted to compensate for the timing error. Claim 11 recites, "compensating the timing error by converting the count value to a phase difference line and estimating a slope of the phase difference line." Page 5, lines 17-28 clearly defines how this is accomplished. Specifically, lines 19-21 state, "it is possible to calculate a timing error  $n_e$  by calculating a slope for the index 'k' of the phase difference and then dividing the calculated slope by  $2\pi/N$ ." Based on at least the foregoing, withdrawal of the rejections of Claims 11 and 12 is respectfully requested.

Regarding the rejection of independent Claims 1, 2, 5 and 8 under §102(b), the Examiner

states that the Admitted Prior Art discloses all of the elements of the claims. Applicants respectfully disagree. First, the present application discloses an apparatus that can remove the influence of the frequency error during timing error estimation, to compensate the timing error even when the frequency error is not completely compensated, and increase an accuracy of compensating the timing error by removing the influence of the noises and the influence of undesired transitions. Claim 1 recites “inserting N pilot symbols each having a same phase using a specific period in a symbol unit to compensate a timing error of a receiver.” Claim 2 recites “and provides the timing error estimation signal to the analog-to-digital converter and the guard interval remover so as to determine the sampling synchronization and the frame synchronization.” Claim 5 recites, “to determine sampling synchronization” and “to determine frame synchronization”. Claim 8 recites, “compensating a timing error using a transition number of the converted phase difference value.” None of these elements of Claims 1, 2, 5 or 8 are either taught or disclosed in the Admitted Prior Art. Based on at least the foregoing, withdrawal of the rejections of Claims 1, 2, 5 and 8 is respectfully requested.

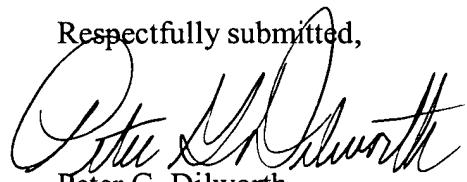
Regarding the rejection of independent Claim 10 under §103(a), the Examiner states that the Admitted Prior Art discloses elements similar to those of Claims 1, 2, 5 and 8, namely, that element of Claim 10 that recites “compensating a timing error, when the count value is larger than the prescribed value.” As similar arguments are applicable to Claim 10 that were asserted with respect to Claims 1, 2, 5 and 8, Claim 10 should be allowed. Based on at least the foregoing, withdrawal of the rejections of Claim 10 is respectfully requested.

Independent Claims 1, 2, 5, 8 and 10 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 4, 6, 7, 9 and 11-14, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 4, 6, 7, 9 and 11-14 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-14, are believed to be in condition for allowance. Should the Examiner believe that a telephone

conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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